Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Usage of the Public Switched Network by Information Service and Internet Access Providers	)	CC Docket No. 96-263

COMMENTS OF CAIS, INC. ("CAIS")

CAIS, Inc. ("CAIS"), by its attorneys, respectfully submits these comments on the Notice of Inquiry ("NOI")[1] released by the Federal Communications Commission ("Commission") in the above-captioned proceeding regarding policies for information services and Internet usage.

INTRODUCTION

CAIS, one of the East Coast's preeminent Internet Service Providers ("ISPs"), offers an entire range of services that includes dedicated[2] and dial-up[3] Internet access services for end users and network backbone services for other ISPs.[4] CAIS has thousands of dial-up access customers and several hundred dedicated access customers,

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[1] *Usage of the Public Switched Network by Information Service and Internet Access Providers*, Notice of Inquiry, FCC 96-488, CC Docket No. 96-263 (released Dec. 24, 1996) ("NOI").

[2] Dedicated access services refer to Internet services that typically are provided to businesses or government offices used to support multiple individual users at the particular business or government office. In this service arrangement, the connection between the customer and the CAIS network is via a non-switched, high-capacity transmission facility operating at DSI rates (1.544 Mbps) or higher, that is only used by that customer and does not interconnect with the Public Switched Telephone Network ("PSTN"). This service arrangement therefore has no direct impact on the PSTN "congestion" concerns addressed in the NOI.

[3] Dial-up access services refer to Internet services that are provided to individual end users. In this service arrangement, a customer accesses CAIS by placing a telephone call through a local telephone switch to connect to the CAIS network.

[4] More information about CAIS may be found at the company's World Wide Web site <http://www.cais.com>.

with the bulk of its traffic generated by dedicated access customers. Although the majority of current CAIS customers are in the Washington, DC metropolitan area, CAIS also provides dedicated Internet connections to customers in a growing number of countries[5] and currently is expanding its operations into other regions of the United States. Additionally, CAIS provides underlying Internet connectivity to more than 60% of the ISPs in the Washington, DC metropolitan area, as well as to a number of international ISPs.

CAIS is a leader in the deployment of innovative and advanced high-speed Internet access and backbone network technologies. It is currently involved in several projects to deploy advanced access technologies that meet customer needs and enhance performance while minimizing traffic demands on the PSTN. One of these projects is to provide dedicated access using advanced wireless technology that directly connects a business or apartment facility to CAIS' packet-switched network, bypassing the LEC's circuit-switched network altogether. CAIS is also involved in the development of technology that will allow for the distribution of high-speed Internet access to individual apartment units and hotel rooms over the existing twisted pair copper wiring in an apartment or hotel that is connected to the CAIS network via a dedicated wireless or wireline Internet connection. Furthermore, CAIS is participating in a trial with Bell Atlantic to provide Asymmetric Digital Subscriber Line ("ADSL") access for dial-up customers.[6] These projects to provide enhanced access technologies will build

[5] These countries include France, Germany, Hong Kong, Sweden and the United Kingdom.

[6] More information regarding the trial is available at the company's World Wide Web site <http://www.cais.com.caisweb/adsl.htm> and at Bell Atlantic's Web site <http://www.bell-atl.com/adsl>.

upon the already advanced network of CAIS that is connected via fiber optic cable to Metropolitan Fiber Systems ("MFS") using an OC-48 (2488 Mbps) SONET Ring and to Bell Atlantic using an OC-12 (622 Mbps) SONET facility. Finally, CAIS' backbone network is similarly advanced and uses the latest technology and high-speed facilities to connect at MAE-East and MAE-West, the principal Network Access Points for the Internet in the United States.

SUMMARY

In the Access Charge Notice of Proposed Rulemaking ("NPRM"), the Commission tentatively concluded that access charges should not be imposed on ISPs.[7] The Commission reaffirms this in the NOI and seeks additional comment on local exchange carrier ("LEC") cost recovery issues associated with the impact of Internet usage growth on the Public Switched Telephone Network ("PSTN"). The Commission also seeks input on means to address alleged Internet-induced network congestion concerns,[8] and alternatives for addressing alleged network congestion.[9]

CAIS strongly endorses the Commission's tentative conclusion that access charges should not be imposed on ISPs. Even after access charges are reformed, the Commission should not attempt to "force fit" a cost recovery system designed for carrier-to-carrier connections on ISPs that are end users of the PSTN. The primary reason LECs advocate imposing access charges on ISPs is that ISPs place increased demand on the PSTN and that application of access charges is necessary for LECs to

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[7] *Access Charge Reform*, Notice of Proposed Rulemaking, CC Docket 96-262, FCC 96-488, (released Dec. 24, 1996) at ¶ 288.

[8] NOI at ¶ 313.

[9] *Id.* at ¶ 316.

recover the costs of network upgrades necessary to support this increased demand. Yet it is clear that LECs are generating ample revenue from Internet growth and that imposing access charges on ISPs is not necessary to support an efficient, well-engineered telephone network.

Some LECs also contend that while methods are available that would reduce alleged network congestion, ISPs do not use these methods because the flat-rated access they receive under state local business line tariffs is artificially low. Thus, according to the LECs, development of these new access methods and technologies will be inhibited, leading to increased network congestion as Internet usage grows.[10] CAIS believes this argument ignores competitive pressures placed on LECs by emerging local competition and the threat of bypass by dedicated customers to develop advanced technologies supporting data services. Furthermore, LECs are in fact developing and deploying new access technologies to support their own Internet service offerings.

In light of these developments, the Commission should continue to refrain from imposing access charges and regulations on ISPs. The imposition of such regulation on ISPs will reverse the growth of competition among ISPs, with devastating impacts on small ISPs, and impede the development of new communications services in this still relatively young and emerging industry. There is scant, anecdotal and uncompelling data related to the impact Internet usage has on the PSTN; certainly nothing has been presented to date that would justify Draconian measures such as imposing access

[10] *See, e.g.*, Lee Bauman, Vice President - Local Competition, Pacific Bell, Introductory Remarks at the FCC Bandwidth Forum (Jan. 23, 1997) <http://www.fcc.gov/bandwidth/bauman.html> ("ESPs, including Internet access providers have responded to the false price signal created by the ESP exemption by using the switched circuit network in an inefficient manner. . . While we may find faster and better

(Footnote continued on next page)

charges and other regulations on ISPs. Instead the Commission should rely on existing mechanisms to monitor the health of the PSTN, and focus on identifying and removing regulatory barriers that may impede the continued growth of the Internet. Finally, because the Internet is not limited by national boundaries, CAIS encourages the Commission to consider the international ramifications of any action it might take related to the Internet.

DISCUSSION

I. IMPOSING ACCESS CHARGES ON ISPs AT THIS TIME IS UNNECESSARY AND UNLAWFUL

Requiring ISPs to pay carrier access charges would be unlawful. Section 202(a) of the Communications Act of 1934 states that "[i]t shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges . . . in connection with like communication services."[11] ISPs and other business users purchase very similar services from LECs. Both ISPs and other business users buy either business lines (1MB lines) or dedicated facilities from LECs that place similar demands on the PSTN.[12] Thus, the services provided by ISPs and other business users are "like" services for the purposes of Section 202. In light of this conclusion, the Commission must justify the reasonableness of any price differences. No evidence has been provided that would

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alternatives, from a pricing standpoint, we can't compete with something that customers and competitors are used to having almost for free.").

[11] 47 U.S.C. § 202(a).

[12] Lee Selwyn & Joseph Laszlo, *The Effect of Internet Use on the Nation's Telephone Network*, Economics and Technology, Inc., Jan. 1997 at § 2 p. 9 ("ETI Study") ("The usage levels for ESP trunks as cited by the BOCs are therefore not particularly noteworthy; indeed, they are found frequently among other large-volume end users.").

justify price differences between "like" services purchased by ISPs and other business users as reasonable.

Imposing access charges would be inconsistent with the Commission's mandate to promote competition and ensure affordable communications services to all Americans. Since the Communications Act of 1934, it has been the mandate of the Commission to ensure affordable access to all Americans to communications services.[13] Under the Telecommunications Act of 1996 the Commission must promote competition and de-regulation.[14]

Imposing access charges would depress Internet usage and drive smaller ISPs out of business, directly contravening the fundamental mandates of the Commission. According to a forthcoming study of the Organization for Economic Cooperation and Development ("OECD"),[15] "[h]igh Internet access charges prevent much of the world from logging on" to the Internet.[16] The study demonstrates that substantial per-minute charges levied on callers inhibit their ability to access the Internet.[17] Thus, imposing access charges on ISPs that would have to be passed along to consumers because of the already thin profit margins of ISPs would lead to Internet usage being unaffordable to many and depress the growth and development of this revolutionary new

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[13] 47 U.S.C. § 151.

[14] The intent of the 1996 Act is "to provide a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all American's by opening all telecommunications markets to competition." *See* Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 1 (1996).

[15] The OECD is an international organization to promote economic growth among the United States, the countries of the European Union and numerous other countries.

[16] Douglas Levin & Jennifer Schenker, *High Access Costs for Net Depress Usage, Study Says*, Wall St. J., Mar. 14, 1997 at A9.

[17] *Id.*

communications medium.[18] Such a result directly contravenes the Commission's "affordable access" and "pro-competition" mandates -- as well as the congressional finding in the 1996 Act that government should continue policies that will allow the Internet to "flourish," with a minimum of government regulation[19] -- and would threaten United States leadership in the global information economy and Internet-related industries.

II. THE COMMISSION SHOULD REFRAIN FROM IMPOSING ACCESS CHARGES OR OTHER REGULATORY BURDENS ON ISPS

In the 1996 Act, Congress made clear that it is the policy of this country to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[20] Recently introduced Senate and House bills[21] proposing a tax-free Internet re-enforce this policy as they attempt to minimize tax burdens and regulations on the Internet. Both bills share a common theme of seeking to reduce burdensome taxation and regulation from "restrict[ing] the growth and continued technological maturation of the

[18] Senator Wyden's recently introduced bill, entitled the Internet Tax Freedom Act, recognizes that the Internet can be "especially beneficial to senior citizens, the physically challenged, citizens in rural areas and small business." S. 442, 105th Cong., 1st Sess. § 2 (1997). In light of these views which are shared by many in Congress, it is unlikely Congress would look favorably on any action by the Commission that would impede the ability of these groups to take advantage of the benefits of the Internet.

[19] 47 U.S.C. § 230(a)(1).

[20] *Id.* at 230(b)(1).

[21] Along with the Senate bill (see note 18), Representative Weldon recently introduced a House bill to ban state taxation of the Internet. H.R. 786, 105th Cong., 1st Sess. (1997). In introducing this bill, Rep. Weldon emphasized "that this legislation is a strong statement in support of the free and unfettered development of this [Internet] industry." 143 Cong. Rec. H786-02 (daily ed. Mar. 6, 1997) (Statement of Rep. Weldon).

Internet itself, and to call[ing] into question the continued viability of this dynamic medium."[22]

In light of this clear and continuing direction from the Congress and the lack of any compelling need for regulation, the Commission should refrain from the temptation to regulate the Internet. The principal reasons usually articulated for imposing access charges and related regulatory burdens on ISPs is that Internet usage is "congesting" the PSTN and that LECs cannot recover the costs of upgrades needed to support the increased traffic generated by ISP customers.[23] Neither of these allegations has been substantiated. Only anecdotal tales of congestion have been reported, and the need for additional LEC revenues has been very clearly refuted.

The Commission's own network performance and monitoring activities demonstrate that the PSTN is quite healthy. The Network Reliability and Interoperability Council ("NRIC"), a federal advisory committee under the Commission, has reported that *no* network outages -- a term encompassing dial-tone delay[24] -- have been reported that can be linked to Internet usage.[25] In fact, a review of over 300 outage reports filed since 1995 yields *only six reports in more than two years* that

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[22] S. 442, 105th Cong., 1st Sess. § 2 (1997).

[23] NOI at ¶ 286 ("The BOCs claim that Internet users typically stay on the line far longer than voice users, but that the flat monthly rates Internet service providers pay to incumbent LECs do not cover the additional cost of network upgrades that are required to support such traffic.").

[24] An outage is defined broadly as a significant degradation in the ability of a customer to establish and maintain a channel of communications as a result of a failure or degradation in the performance of a carrier's network. 47 C.F.R. § 63.100(a)(1). Thus, an outage does not necessarily mean a total loss of service. The FCC has clarified that the term outage includes both loss of dial tone and significant congestion that results in dial tone delay. *Clarification of Interim Outage Reporting*, FCC, Public Notice, June 2, 1992. Finally, the FCC is particularly interested in outages that impact Public Service Access Points ("PSAPs") that handle 911 traffic and requires more stringent reporting of outages impacting PSAPs. 47 C.F.R. § 63.100(e).

[25] *Hundt Asks Network Reliability and Interoperability Council to Monitor Impact of Internet Growth on Public Networks*, FCC News Release, Nov. 1, 1996.

indicate a degradation of dial tone response times.[26] Of these six, only one -- dial tone delay resulting from network congestion from calls placed to purchase tickets to the first playoff game of the Cleveland Indians in 40 years -- relates to user induced congestion. This absence of any empirical reports corroborating LEC claims that the PSTN is "creaking" or "strained" from the surge in Internet usage demand certainly does not seem to be the compelling evidence that the Commission would want to serve as the basis for Internet regulation, particularly in light of Congress' clear direction not to regulate the Internet.

Contrary to claims by LECs and their allies, ISPs are not receiving "subsidized" access or a "free ride."[27] LECs already receive more than adequate revenues to recover any costs associated with increased Internet usage. First, LECs receive significant direct revenue from ISPs for service.[28] Additionally, the growth of the Internet has indirectly stimulated LEC revenue growth from increases in the sale of second lines for residences to support Internet access, increases in the sale of ISDN lines that LECs are promoting as a way to provide faster access to the Internet and the provision of data services such as frame relay services. (Thus, although the inbound call to an ISP is not, in many states, subject to measured usage charges, the Internet subscriber pays the LECs for placing the call on his or her own telephone line.)

On this score, the Economics and Technology, Inc. ("ETI") study sponsored by the Internet Access Coalition demonstrates that the growth in these LEC revenues far

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[26] One of these is an initial report that does not identify a cause.

[27] *See, e.g.*, Adam D. Thierer, *End Free Ride on the Internet*, Wall St. J., Mar. 7, 1997 at A14.

[28] Nearly 20% of CAIS' costs of providing Internet access can be attributed to charges levied on it by the LECs.

exceeds the costs LECs claim they are incurring as a result of Internet usage.[29] When looking at only the growth of residential second lines, the study indicates that from 1990 through 1995, the Bell Operating Companies ("BOCs") have collected more than $3.5 billion in additional revenues, while observing that the BOCs' estimate for network upgrades supporting increased Internet usage is only $245 million annually.[30] Furthermore, the ETI revenue estimates are conservative because they do not include revenues generated from the growth of ISDN services, from the provision of data services such as Frame Relay or from ISP services that BOCs themselves are offering for Internet access.

Given Congress' clear direction that the Commission should not regulate and impede the growth of the Internet, the lack of compelling evidence that network congestion exists, and the fact that LECs are receiving adequate revenue to support alleged increased costs associated with Internet growth, the Commission should not impose access charges or regulations on ISPs at this time. Instead, the Commission should use its existing tools to monitor the health of the network , and develop additional LEC monitoring and reporting requirements if the NRIC and Commission believe such action is necessary.

III. THE COMMISSION SHOULD FOCUS ON REMOVING REGULATORY BARRIERS TO COMPETITION AND PROMOTION OF DATA-FRIENDLY TECHNOLOGIES

Competition, not government regulation, will drive the development of advanced data-friendly technologies that reduce and avoid telephone network

[29] ETI Study at p. 3.
[30] *Id.*

congestion. CAIS believes competitive pressures placed on LECs by emerging local competition and the threat of bypass by dedicated customers will drive the development of advanced technologies supporting data services that will reduce the impact of Internet traffic on the PSTN. Furthermore, LECs are currently developing and deploying new technologies -- which do not degrade network performance or impose increased PSTN switching costs -- to support their own desire to offer Internet services.[31] They will obviously continue to do so without additional regulation or ISP access charges as a matter of business necessity in the robustly competitive Internet access market.

There are a variety of technical solutions to address alleged Internet-induced PSTN congestion. Bellcore, the research and development arm of the Regional BOCs, has identified ten potential solutions for ameliorating alleged network congestion, some of which are already being developed and implemented.[32] Indeed, Nortel and Lucent Technologies, the two largest providers of telecommunications switching systems in the United States, have already developed equipment to support increased data traffic. Lucent indicates that it has developed four products to "ease the burden that communications services providers carry in the Internet Age."[33] Finally, ISPs such as

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[31] For example, Ameritech provides dedicated Internet access using Ameritech's Frame Relay and Connectionless Broadband Data Service. Bell Atlantic provides Internet access using Switched Multi-megabit Data Service ("SMDS") at speeds up to 34 Mbps, frame relay transport service and for "high capacity Internet Access" ISDN. BellSouth offers Internet access for a flat $19.95 per month. Pacific Bell offers a wide range of Internet services including SMDS access, ISDN access, ISDN Local Area Network services and frame relay services. SBC offers unlimited dial-up access for $17.00 per month and also offer ISDN services. US West offers a whole variety of Internet related services including Asynchronous Transfer Mode Cell Relay Service, "a new connection-oriented communications service" that is suited for "data-intensive business computing."

[32] Amir Atai & James Gordon, *Impacts of Internet Traffic on LEC Networks and Switching Systems*, Bellcore, Aug. 1996, at p. 5 ("Bellcore Study").

[33] <http://www.lucent.com/internet>

CAIS are deploying advanced technologies to improve access speeds and *migrate data traffic from the circuit-switched PSTN to packet-switch networks more suitable for Internet communications*. As mentioned previously, CAIS is currently investigating the use of an advanced wireless technology to provide Internet services without accessing the PSTN, developing an innovative access technology to provide high speed Internet access to individual apartment and hotel rooms using the existing inside wiring and trialing ADSL.

In light of the competitive pressures on LECs to deploy new data-friendly technologies and the clear evidence that technical and operational solutions are being developed by manufacturers and deployed by ISPs, there is no need for Commission regulation of the Internet. Instead the Commission should focus on identifying regulation, to the extent is exists, that impedes LECs from deploying data-friendly technologies.

IV. THE COMMISSION SHOULD EVALUATE THE INTERSTATE AND INTERNATIONAL CHARACTER OF THE INTERNET AND CONSIDER PREEMPTION OF STATE INTERNET REGULATION

The access charge issue presents a curious reversal of customary LEC positions with respect to the allocation of federal and state regulatory jurisdiction over telecommunications. Usually, and most recently in their judicial challenges to the FCC's August 1996 interconnection order under Section 251 of the Act, LECs argue that intrastate services and facilities are subject to the exclusive jurisdiction of state commissions. Here, in contrast, LECs are insisting on application of federal regulation and charges to what, in classic communications doctrine, are clearly intrastate services and facilities.

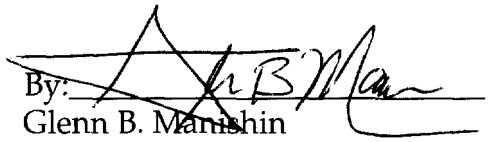
If the Commission really wants to resolve the potential network congestion and cost recovery issues raised with respect to the Internet, it will have to grapple with and resolve this jurisdictional dilemma. In a very real sense, what the LECs are requesting is that the Commission reclassify local exchange, state-tariffed telephone services as interstate access services subject to FCC jurisdiction. To do so, CAIS believes, requires that the Commission evaluate the interstate and international character of the Internet and consider preemption of state Internet regulation.

Internet services are inherently interstate and increasingly international. The Internet is a global medium that is almost entirely location indifferent, with no current ability to determine precisely the geographic location of the destination of a data packet. To develop such an ability would be technically infeasible, if not impossible, and require cumbersome overhead within each packet of information and additional processing capabilities that would degrade the performance of the Internet itself. The inability to identify the geographic origin and destination of Internet data packets makes "jurisdictional separation" of Internet messages nearly impossible and the enforcement of disparate state and federal regulations burdensome and ineffective. Additionally, state regulation plainly contravenes the federal policy that the Internet should remain "unfettered" by state regulation. Thus, with respect to additional Internet regulation, the Commission should prevent states from adopting disparate and potentially conflicting state Internet regulations that will impair an ISP's ability to effectively provide service in multiple states.

CONCLUSION

The Commission should not impose access charges or other regulations on the Internet. The cost and regulatory burdens associated with access charges are not necessary to protect the PSTN and would represent a financial windfall to LECs; technologies already exist that are alleviating any possible strain on the PSTN by moving Internet traffic to more appropriate packet-switched access methods that do not utilize telephone network switches. Therefore, the Commission should continue to monitor the health of the PSTN and aggressively promote competitive alternatives to the local loop for Internet access, as competition is the best solution to ensuring the continued growth of the Internet and health of the PSTN. Competitive market forces will drive the development of data friendly technologies that relieve any telephone network congestion caused by the Internet.

Respectfully submitted,



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